

Varner et al.  
Application No.: 10/740,698  
Page 2 of 17

**Amendments To The Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-67. (cancelled)

Claim 68. (currently amended) An implantable drug delivery device comprising:  
a non-linear shaped body member having at least two deviations from a linear path and  
that has a shape other than a substantially C-configuration and that is implanted within a patient  
to deliver a drug substance to the patient via the body member; and  
a cap element sized to prevent the cap element from passing through that abuts an  
incision through which the device is inserted, wherein the cap element abuts the incision to  
stabilize the device once implanted.

Claim 69. (previously presented) The device of claim 68 wherein the device body  
member comprises at least three deviations from a linear path.

Claim 70. (previously presented) The device of claim 68 wherein the device body  
member comprises at least four deviations from a linear path.

Claim 71. (previously presented) The device of claim 68 wherein the device body  
member comprises at least five deviations from a linear path.

Claim 72. (previously presented) The device of claim 68 wherein the device body  
member comprises a helical shape.

Claim 73. (previously presented) The device of claim 68 wherein the device body  
member comprises a substantially Z-shape.

Claim 74. (previously presented) The device of claim 68 wherein the cap element  
mates against a patient eye outer surface while the body member is inserted into the eye.

Varner et al.  
Application No.: 10/740,698  
Page 3 of 17

Claim 75. (previously presented) The device of claim 68 wherein the cap element mates the body member at a proximal end of the device.

Claim 76. (previously presented) The device of claim 68 wherein the device comprises a therapeutic agent for delivery to the patient during use of the device.

Claim 77. (previously presented) The device of claim 68 wherein the device body member comprises a polymer.

Claim 78. (previously presented) The device of claim 68 wherein the device body member comprises a polymer that comprises a therapeutic substance to be delivered to the patient eye.

Claim 79. (currently amended) An implantable drug delivery device comprising:  
a coil-shaped body member that is implanted within a patient to deliver a drug substance to the patient via the body member; and  
a cap element sized to prevent it from passing through that abuts an incision through which the device is inserted, wherein the cap element abuts the incision to stabilize the device once implanted.

Claim 80. (previously presented) The device of claim 79 wherein the device comprises a therapeutic agent for delivery to the patient during use of the device.

Claim 81. (previously presented) The device of claim 79 wherein the device body member comprises a polymer.

Claim 82. (previously presented) The device of claim 79 wherein the device body member comprises a polymer that comprises a therapeutic substance to be delivered to the patient.

Varner et al.  
Application No.: 10/740,698  
Page 4 of 17

Claim 83. (currently amended) A method for treating a patient comprising:

(a) providing a delivery device comprising a non-linear shaped body member having at least two deviations from a linear path and that has a shape other than a substantially C-configuration, the body member having a proximal end and a distal end, and a cap element at the proximal end;

(b) inserting into a patient through an incision the device whereby the body member resides in the patient and the cap element remains outside about the incision through which the device is inserted and abuts the incision to stabilize the device;  
and

(c) allowing a therapeutic substance to be administered to the patient via the body member.

Claim 84. (previously presented) The method of claim 83 wherein the device body member comprises at least three deviations from a linear path.

Claim 85. (previously presented) The method of claim 83 wherein the device body member comprises at least four deviations from a linear path.

Claim 86. (previously presented) The method of claim 83 wherein the device body member comprises at least five deviations from a linear path.

Claim 87. (previously presented) The method of claim 83 wherein the device body member comprises a helical shape.

Claim 88. (previously presented) The method of claim 83 wherein the device body member comprises a substantially Z-shape.

Varner et al.  
Application No.: 10/740,698  
Page 5 of 17

Claim 89. (previously presented) The method of claim 83 wherein the substance administered to the patient is chosen from one or more of an antibiotic, an antifungal, an antiviral, an antibacterial, an antiallergenic, an anti-inflammatory, a decongestant, a miotic or anti-cholinesterase, a mydriatic, a sympathomimetic, an antineoplastic, a hormonal agent, a beta adrenergic blocker, a growth factor, a carbonic anhydrase inhibitor, an angiogenesis inhibitor, a prostaglandin or an antiprostaglandin.

Claim 90. (previously presented) The method of claim 83 wherein the device body member comprises a polymer.

Claim 91. (previously presented) The method of claim 83 wherein the device body member comprises a polymer that comprises a therapeutic substance to be delivered to the patient.

Claim 92. (previously presented) The method of claim 83 wherein the device comprises a shape memory material.

Claim 93. (currently amended) A method for treating a patient comprising: (a) providing a drug delivery device comprising a coil-shaped body member and a cap element sized to prevent the cap element from passing through an incision through which the device is inserted; ~~and~~ (b) inserting into a patient eye the device whereby the coil-shaped body member is placed in the patient eye and the cap element abuts the incision; and (c) allowing a substance to be ~~is~~ delivered by the device to the patient.

Claim 94. (previously presented) The method of claim 93 wherein the substance delivered to the patient eye is chosen from one or more of an antibiotic, an antifungal, an antiviral, an antibacterial, an antiallergenic, an anti-inflammatory, a decongestant, a miotic or anti-cholinesterase, a mydriatic, a sympathomimetic, an antineoplastic, a hormonal agent, a beta

Vanner et al.  
Application No.: 10/740,698  
Page 6 of 17

adrenergic blocker, a growth factor, a carbonic anhydrase inhibitor, an angiogenesis inhibitor, a prostaglandin or an antiprostaglandin.

Claim 95. (previously presented) The method of claim 93 wherein the device body member comprises a polymer.

Claim 96. (previously presented) The method of claim 93 wherein the device body member comprises a polymer that comprises a therapeutic substance to be delivered to the patient eye.

Claim 97. (previously presented) The method of claim 93 wherein the device comprises a cap element that mates against patient eye outer surface while the body member is inserted into the eye.

Claim 98. (previously presented) The method of claim 93 wherein the device comprises a shape memory material.

Claim 99. (currently amended) A method for treating a patient comprising: (a) providing a drug delivery device comprising a non-linear shaped body member having at least two deviations from a linear path and that has a shape other than a substantially C-configuration, and a cap element sized to prevent the cap element from passing through an incision through which the device is inserted; and (b) inserting into a patient eye the device whereby the body member resides in the patient eye and the cap element abuts the incision; and (c) administering a substance is administered to the patient via the body member.

Claim 100. (previously presented) The method of claim 99 wherein the device body member comprises at least three deviations from a linear path.

Claim 101. (previously presented) The method of claim 99 wherein the device body member comprises at least four deviations from a linear path.

Varner et al.  
Application No.: 10/740,698  
Page 7 of 17

Claim 102. (previously presented) The method of claim 99 wherein the device body member comprises at least five deviations from a linear path.

Claim 103. (previously presented) The method of claim 99 wherein the device body member comprises a helical shape.

Claim 104. (previously presented) The method of claim 99 wherein the device body member comprises a substantially Z-shape.

Claim 105. (previously presented) The method of claim 104 wherein the substance administered to the patient eye is chosen from one or more of an antibiotic, an antifungal, an antiviral, an antibacterial, antiallergenic, an anti-inflammatory, a decongestant, a miotic or anticholinesterase, a mydriatic, a sympathomimetic, an antineoplastic, a hormonal agent, a beta adrenergic blocker, a growth factor, a carbonic anhydrase inhibitor, an angiogenesis inhibitor, a prostaglandin or an antiprostaglandin.

Claim 106. (previously presented) The method of claim 99 wherein the device body member comprises a polymer.

Claim 107. (previously presented) The method of claim 99 wherein the device body member comprises a polymer that comprises a therapeutic substance to be delivered to the patient eye.

Claim 108. (previously presented) The method of claim 99 wherein the device comprises a cap element, and the device is inserted until the cap mates against the outer surface of the patient eye.

Claim 109. (previously presented) The method of claim 83, 93, or 99 wherein the device is inserted by twisting or screwing the device into the eye.

Varner et al.  
Application No.: 10/740,698  
Page 8 of 17

Claim 110. (previously presented) The method of claim 99 wherein the device comprises a shape memory material.

Claim 111. (currently amended) An implantable ocular drug delivery device comprising: a) a coil-shaped body member that is implanted within a patient eye during use of the device to deliver a drug substance to the patient eye; b) a cap element sized to prevent the cap element from passing through an incision through which the device is inserted, wherein the cap element that mates against the patient eye outer surface while the body member is inserted to the eye.

Claim 112. (previously presented) The device of claim 111 wherein the device comprises a therapeutic agent for delivery to the patient eye during use of the device.

Claim 113. (previously presented) The device of claim 111 wherein the cap element mates the body member at a proximal end of the device.

Claim 114. (previously presented) The device of claim 111 wherein the device body member comprises a polymer.

Claim 115. (previously presented) The device of claim 111 wherein the device body member comprises a polymer that comprises a therapeutic substance to be delivered to the patient eye.

Claim 116. (currently amended) An implantable ocular drug delivery device comprising:

a non-linear shaped body member having at least two deviations from a linear and that has a shape other than a substantially C-configuration and that is implanted within a patient eye during use of the device to deliver a drug substance to the patient eye via the body member; and

Varner et al.  
Application No.: 10/740,698  
Page 9 of 17

a cap element sized to prevent the cap element from passing through an incision through which the device is inserted, that the cap element configured to mates against the patient eye outer surface while the body member is inserted to the eye.

Claim 117. (previously presented) The method of claim 83, 93, or 99, wherein the incision comprises a sclerotomy.

Claim 118. (previously presented) The method of claim 83, 93, or 99, wherein the device is implanted in a minimally invasive surgical procedure.

Claim 119. (previously presented) The method of claim 83, 93, or 99, wherein the device is implanted at the pars plana.

Claim 120. (previously presented) The method of claim 83, 93, or 99, wherein the body member is in contact with intravitreal fluid.

Claim 121. (previously presented) The device of claim 68, 79, 111, 116, or 129, wherein the body member has a cross-sectional diameter approximately equal to that of an incision through which the device is inserted.

Claim 122. (previously presented) The device of claim 68, 79, 111, 116, or 129, wherein at least a portion of the body member comprises a biodegradable polymer.

Claim 123. (previously presented) The device of claim 122, wherein the biodegradable polymer contains microparticles of the drug substance, wherein as the polymer degrades, the drug substance is released.

Claim 124. (previously presented) The device of claim 122, wherein the biodegradable polymer is selected from polyesters of molecular weight of 4,000 to 100,000, homopolymers and copolymers of polylactic acid and polyglycolic acid, polycaprolactone,



Varner et al.

Application No.: 10/740,698

Page 10 of 17

homopolymers and copolymers of polyanhydrides, homopolymers and copolymers of dicarboxylic acids, polymeric fatty acid dimer compounds, poly(alky-2-cyanoacrylate), poly(hexyl-2-cyanoacrylate), collagen (gelatin), polyacetals, divinylxyalkylenes, polydihydropyrans, polyphosphazenes, homopolymers and copolymers of amino acids, polydioxinones, polyalkylcyano acetates, polysaccharides and their derivatives, and cellulose and hydroxymethyl cellulose.

Claim 125. (previously presented) The device of claim 122, wherein the biodegradable polymer comprises one or more of terephthalic acid anhydride, bis(p-anhydride), poly(p-carboxyphenoxy) alkyl, sebacic acid, adipic acid, oxalic acid, phthalic acid, maleic acid, polydodecanedioic acid polyorthoesters, copolymers of leucine and methyl glutamate, dextran, or cyclodextran.

Claim 126. (previously presented) The device of claim 68, 79, 111, 116, or 129, wherein at least a portion of the device comprises a material that is permeable or semi-permeable to the drug substance.

Claim 127. (previously presented) The device of claim 126, wherein the portion of the device that comprises a permeable or semi-permeable material represents a percentage of the overall body member material, and wherein the percentage of body member material composed of permeable or semi-permeable material controls rate of delivery of the drug substance.

Claim 128. (previously presented) The device of claim 72, 79, 111, 116, or 129, wherein the cap has a diameter that is greater than the diameter of the helix or coil.

Claim 129. (currently amended) An implantable ocular drug delivery device comprising:

a coil-shaped body member that is implanted within a patient to deliver a drug substance to the patient via the body member; and

Varner et al.  
Application No.: 10/740,698  
Page 11 of 17

a cap element sized to prevent the cap element from passing through an incision through which the device is inserted, the cap element being that is in contact with the coil-shaped body member.